Faronics

POWERSAVE™

User Guide

AUTOMATED Energy Conservation

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About Faronics

Faronics delivers market-leading software that help manage, simplify, and secure IT environments. Our products ensure 100% workstation availability, and have dramatically impacted the day-to-day lives of thousands of information technology professionals. Fueled by a customer-centric focus, Faronics' technology innovations benefit educational institutions, healthcare facilities, libraries, government organizations and corporations.

Technical Support

Every effort has been made to design this software for ease of use and to be problem free. If problems are encountered, contact Technical Support:

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Hours:	7:00am to 5:00pm (Pacific Time)

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Contents

Faronics Power Save Overview **7**
System Requirements 7
Power Save Terms 7

Installing Power Save **8**
Power Save Console 8
Launching the Console 8

Configuring the Console **8**
Workstation Installation Tab 9
Create New Account 9
View/Edit Initial Configuration 9
Create Workstation Installer 9
Console Tab 10
Reports Tab 10
About Tab 10

Deploying the Workstation Installation File **11**
Configuring Workstation Credentials 12
Configuring Workstation Event Reporting 12
Console and Workstation Communication 13
Updating Power Save 13
Remove from Database 13

Configuring Power Save through the Console **14**
Actions Tab 14
Configuration Options 15
Inactivity Timeout Actions 15
User Notification 15
Definitions Tab 16
Configuration Options 17
Disk Activity 17
CPU Activity 17
Applications Running 17
Power Save Workstation Configuration Files 17

Console Actions **18**
Scheduling Actions 18
One-Time Actions 19
Daily Actions 19
Weekly Actions 20
Monthly Actions 20
Action Status 21
Generating Reports 21
Creating a Subgroup 22
Adding Workstations to a Group with a Filter 22

Configuring Client Settings Locally **23**
Event Reporting Tab 23

Power Save Command Line Control **24**

Uninstalling Power Save **24**
Uninstalling the Console 24
Uninstalling the Workstation Client Program 24

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Faronics Power Save Overview

Faronics Power Save™ is an effective and reliable energy conservation tool that accurately manages energy consumption throughout an entire enterprise, and significantly cuts down on energy expenditures. Power Save offers flexible options for determining when a computer is inactive, and what actions should be taken during that inactivity.

Power Save is an enterprise application with a single console that can control and manage multiple workstations.

System Requirements

The Power Save Console computer requires .NET 2.0, MMC 3.0, Windows XP SP2 or Windows 2003 Server.

The client computer requires Windows 2000 SP4 or Windows XP SP2,.

It is highly recommended that all components be installed using a Windows Administrator account.

Power Save Terms

MMC (Microsoft Management Console): A Microsoft framework that provides administrators with a flexible common user interface to configure and monitor systems; this is the user interface framework used by the Power Save Central Console

Snap-in: A program written by third-party developers designed to run in an MMC

Actions Pane: A part of the MMC that displays tasks such as configuring workstation options, shutdowns, Wake-on-LAN, etc.

MSI (Microsoft Installer): An .msi file is an installation package used to install the Power Save workstation file

Tasks: A Power Save action applied to one or more workstations such as applying new settings, shutting down, or waking up Power Save workstations

Scheduling: A process used to determine when a task will execute; based on Windows Scheduling

Wake-on-Lan: A hardware enabled feature (network card) that allows remote activation of the PC

Inactivity Timeout Actions: Actions that Power Save can perform when a workstation becomes inactive, which are:

- Turn off monitor
- Standby – a mode in which the computer is turned off but able to activate on command
- Hibernate – a mode in which the operating system is suspended by storing memory on the hard disk before powering down
- Shut down

Inactivity Definitions: The definition of what makes a workstation inactive, including the following parameters:

- Disk Utilization – user defined measurement of disk (hard drive) utilization; if the disk utilization is lower than this defined amount, the workstation is considered inactive and power saving actions will occur
- CPU utilization – user defined measurement of CPU utilization; if the CPU utilization is lower than this defined amount, the workstation is considered inactive and power saving actions will occur
- Applications running – user defined list of applications; if no application from a user defined list is running, the workstation is considered inactive and power saving actions will occur

Installing Power Save

Installing Power Save on a Windows network includes the following steps:

1. Installing the Power Save Console.
2. Configuring the Power Save Client program within the main Console (MMC).
3. Installing the Power Save Client.

The installation set does not include the workstation client *.msi* file; this is created from within the Power Save Console snap-in.

It is recommended to turn off all Windows Power Management on the client workstations as well as the Screen Saver option.

Power Save Console

To install the Power Save Console, complete the following steps:

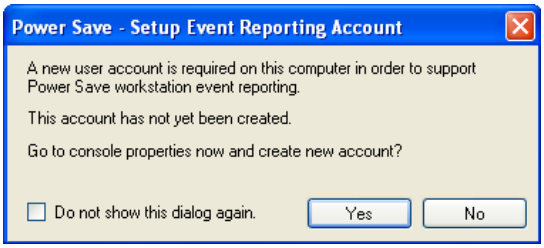
1. If Power Save has been downloaded via the Internet, double-click on the *.exe* file and click *Next* to begin the installation process.

   Or, insert the CD-ROM from the media package into the CD-ROM drive. Wait for the CD to autorun and click *Next* to begin the installation process.
2. An installation wizard appears. Follow the steps presented.
3. Click *Install* and *Finish* to complete the installation.

Launching the Console

The Console can be accessed at: *Start> All Programs> Faronics> Faronics Power Save Console*.

The following screen appears upon first launch of the Console (or during subsequent launches until either an Event Report account has been successfully created or *Do not show this dialog again* has been checked), prompting for the creation of an Event Reporting account:


Power Save - Setup Event Reporting Account
A new user account is required on this computer in order to support Power Save workstation event reporting.
This account has not yet been created.
Go to console properties now and create new account?
Do not show this dialog again.
Yes
No

The account must be set up before the Console can be configured to communicate with workstations. Click *Yes* to configure the account as described in the Console Logging Configuration tab.

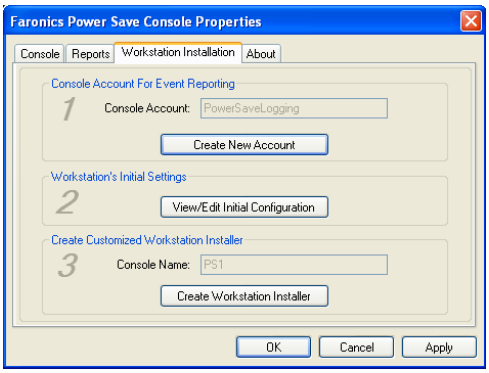
Click *No* to cancel the process or creating an account and exit to the main HTML screen of the Console.

Configuring the Console

To access the tabs to configure the Power Save Console, click *Properties* in the *Actions* pane on the right. Or, right-click *Faronics Power Save Console* in the left pane and select *Properties* from the contextual menu. To access the *Properties* option, the user must be in the top level node, as shown above.

After clicking *Properties*, the following four tabs appear:

Workstation Installation Tab



This tab is used for three initial setup tasks: to create a Windows User Account that enables communication between the Console and the clients, to view or edit the intial client settings, and to create a workstation installation file to be deployed to the clients.

Create New Account

To set up a new account, complete the following steps:

1. Click *Create New Account*.
2. In the *Create New Account* dialog that appears, enter a username and password.

   This username and password is the information that connects the Power Save workstations to the Console. If a workstation installation file is created under one account, and then the information in that account is changed, those workstations will no longer communicate with the Console.
3. Click *OK* or click *Apply* to create the account.

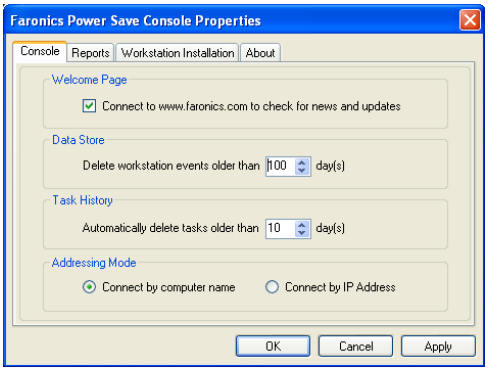
View/Edit Initial Configuration

Click the *View/Edit Initial Configuration* button to specify the initial client settings. The *Edit Default Workstation Installation Settings* window will display. Actions and Definitions can be configured in this window.

Create Workstation Installer

Click *Create Workstation Installer* to create a workstation installation file to be deployed to the client computers. Browse to the preferred location where the file will be saved. An *.msi* file will be created in that location; it will be deployed to the workstations that are to be managed by Power Save.

Console Tab



The *Console* tab is used to specify the following options:

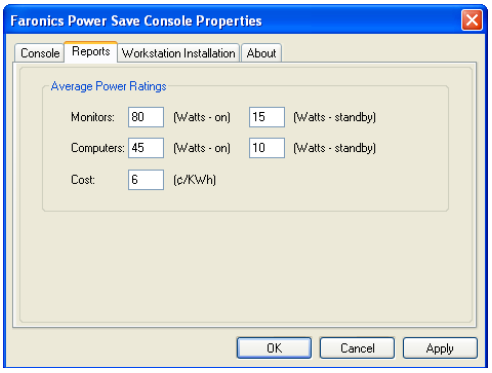
Check *Connect to www.faronics.com to check for news and updates* to allow the Console to communicate with www.faronics.com. If this option is checked, the About tab will display whether a later version of Power Save is available for download and will also display brief marketing news from Faronics.

Specify the number of days to retain client logging information in the Console in the field following *Delete workstation events older than*.

Specify the number of days to retain completed tasks in the Console in the field following *Automatically delete tasks older than*.

Select whether to connect to workstations by computer name or IP address in the *Addressing Mode* section.

Reports Tab



The *Reports* tab is used to enter the average power consumption of specific elements of computers. Enter the known *Average Power Ratings* for *Monitors* and *Computers,* and the known electrical power cost. This data is used in the Power Save Consumption report, and quantifies how much power and money is being saved by using Power Save.

About Tab

Use the *About* tab to check the version number of Power Save.

Deploying the Workstation Installation File

The Workstation Installation file can be deployed through one of three methods described below:

1. ***Manual Installation***

   Locate the workstation Power Save *.msi* file in the folder where it is saved, and execute it on the desired workstation. Double-click on the *.msi* file and click *Next* to continue the installation. Repeat the process for each workstation that will be managed with Power Save.

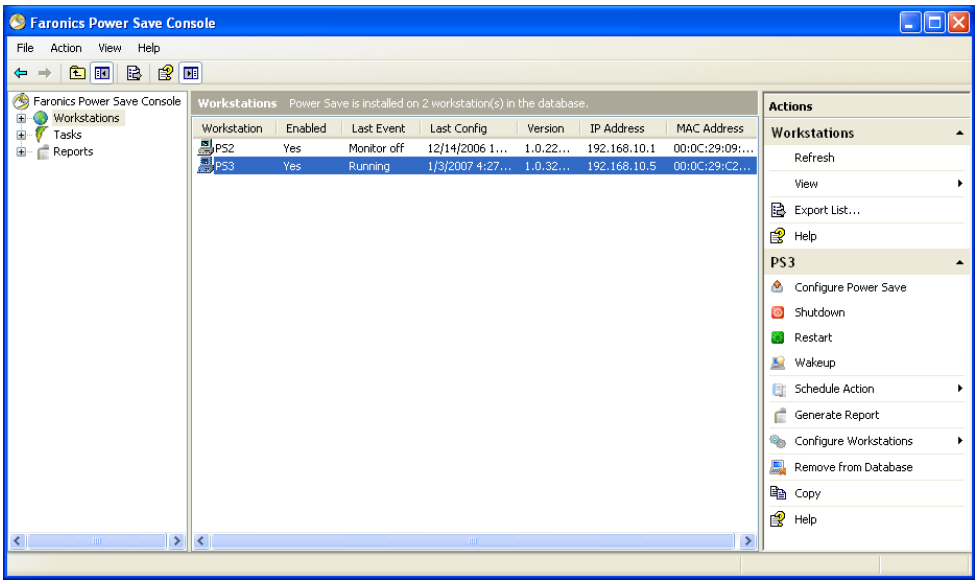
2. ***Desktop Management Solutions***

   There are numerous Desktop Management Solutions available such as LANDesk, SMS, Altiris, LANrev, and many more. Use of these tools to deploy Power Save is beyond the scope of this user guide. Please refer to individual products for information on their usage.

3. ***Group Policies***

   The use of Windows Group Policies is beyond the scope of this user guide. Please refer to the Microsoft knowledge base on how to deploy programs using Windows Group Policies at www.microsoft.com.

After the workstation installation file has been deployed to the preferred workstations, those workstations appear in the main screen of the Console, as shown below:

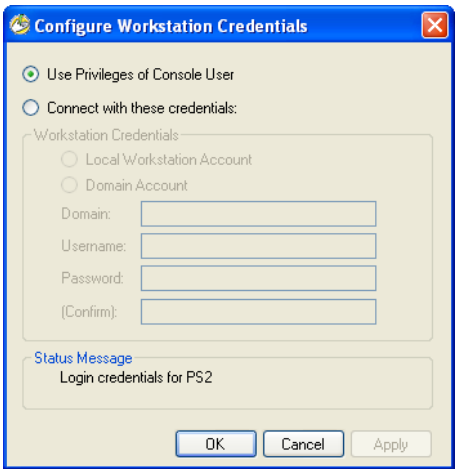


After the workstations appear in the Console, the credentials for all workstations need to be set up before the Console can manage them.

Configuring Workstation Credentials

To configure the credentials of a workstation, click *Configure Workstations* in the right pane and select *Configure Credentials*.

The following dialog appears:



To connect the workstation to the Console with the same privileges of the Console user, select *Use Privileges of Console User*. Click *Apply*.

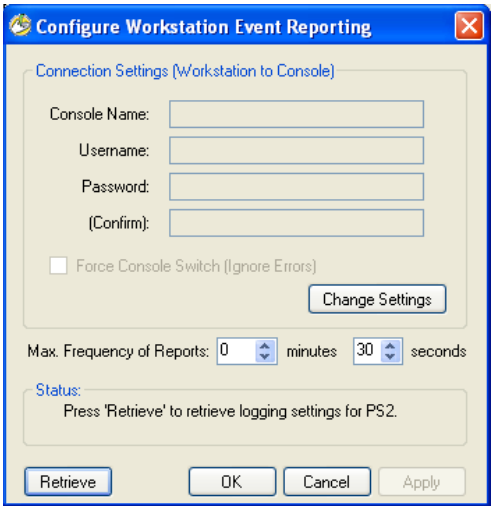
To use a different account, choose either the *Local Workstation Account* or *Domain Account* option. Enter *Username* and *Password*, and the *Domain* if needed. Click *Apply*.

These options are only used to change the logon information from the Console to the Workstation.

Configuring Workstation Event Reporting

To configure the logging information for a workstation, click *Configure Workstations* in the right pane and select *Configure Logging*.

The following dialog appears:



To retrieve the current logging information for the selected workstation, click *Retrieve*.

This dialog should only be used if the login information in Windows has been changed. If this is the case, then use this dialog to update the logging information to match the new *Username* and *Password*.

To change how frequently the workstation reports to the Console, adjust the *Max. Frequency of Reports* setting to the preferred frequency.

Console and Workstation Communication

Power Save uses *WMI* for communication between the Console and the workstations. WMI only works in the context of an account, which means all workstations must know the name and password of a valid account on the Console machine, the logging account.

Similarly, the Console must know the name and password of a valid account on each of the workstations. If the default username and password is being used by the account (such as with a domain-admin account), then this information is already established.

Updating Power Save

To update Power Save on a workstation, click *Configure Workstations* in the right pane and select *Advanced > Update Power Save.*

Browse to the location of the new Power Save file, and click *Open*.

The workstation will be updated to the new version.

Remove from Database

To remove a workstation from the database, select the workstation and click *Remove from Database* in the right pane.

Configuring Power Save through the Console

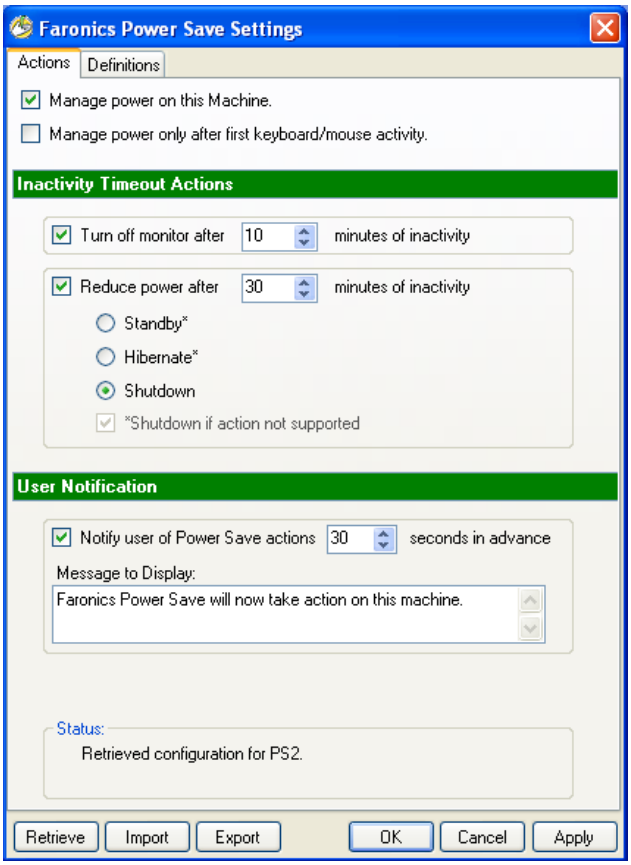
After Power Save has been installed on a client workstation, that workstation can be configured either through the Console or locally.

To configure Power Save through the Console, select a workstation from the list of active workstations and click *Configure Power Save* in the *Actions* pane.

All actions listed in the *Actions* pane are available from the contextual menu that appears by right-clicking on one or more selected workstations

Actions Tab

The *Actions* tab is used to configure what action will occur for what length of time when a workstation becomes inactive, and appears as follows:



To load the pre-existing Power Save configuration from a workstation, click *Retrieve*. The current Power Save settings that are applied to the workstation appear in the tab and can be edited.

Only one workstation setting can be retrieved at a time; the *Status* field displays if the *Retrieve* action was successful.

To apply a Power Save installation file, click *Import*. Browse to the location of the saved file and click *Open*.

To save a configuration file once it is complete, click *Export*. Browse to the preferred Save location for the file and click *OK*.

To exit the *Actions* tab without applying changes to a workstation, click *Cancel*.

To apply changes to a workstation, click *Apply*.

To apply changes to a workstation and exit the tab, click *OK*.

Configuration Options

Check *Manage Power on this Machine* if Power Save is managing the power usage on the computer.

Check *Manage Power only after first keyboard/mouse activity* if Power Save should begin monitoring power usage after the first keyboard or mouse activity, and not when the computer is first turned on, even if there is no activity.

Inactivity Timeout Actions

To save energy used by a monitor check the *Turn off monitor after* box and use the spin box to choose the number of minutes for this action to occur.

To manage energy used by the workstation's CPU, check *Reduce power after* and adjust the number of minutes to initiate one of the following three options:

- *Standby*: puts the CPU into standby mode
- *Hibernate*: puts the CPU into Hibernate mode
- *Shutdown*: completely turns the CPU off

It is recommended that the *Shutdown if action not supported* option be selected if *Standby* or *Hibernate* is selected. This ensures power savings for hardware that does not support these modes.

User Notification

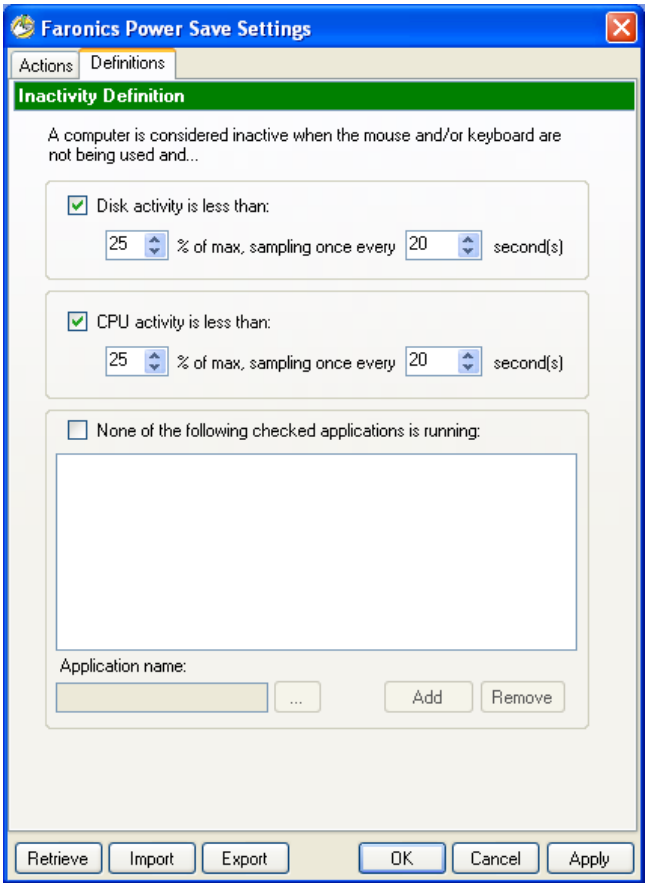
To notify the user that Power Save actions are going to be taken, check *Notify user of Power Save actions* and use the spin box to enter the number of seconds the user will see the warning for.

To enter a customized message for the user, enter it in the *Message to display* field.

The user can always cancel this action by moving mouse or using the keyboard.

Definitions Tab

The *Definitions* tab is used to define when a workstation is inactive.



To load the pre-existing Power Save configuration, click *Retrieve*. The current Power Save settings that are applied to the workstation appear in the tab and can be edited.

Only one workstation setting can be retrieved at a time; the *Status* field displays if the *Retrieve* action was successful.

To apply a Power Save installation file, click *Import*. Browse to the location of the saved file and click *Open*.

To save a configuration file once it is complete, click *Export*. Browse to the preferred Save location for the file and click *OK*.

To exit the *Definitions* tab without applying changes to a workstation, click *Cancel*.

To apply changes to a workstation, click *Apply*.

To apply changes to a workstation and exit the tab, click *OK*.

Configuration Options

The basic definition that Power Save uses to define inactivity is stated at the top of the tab: *The mouse and/or keyboard are not being used*. The other options are in addition to this definition.

By default, the three configurable options are not checked. If no configuration is done to this tab, the only element of inactivity will be keyboard and mouse movement.

Disk Activity

To include hard disk activity in the inactivity definition, check *Disk activity is less than*, and configure the following settings:

- Set the percentage number to define inactivity of the hard disk
- Set the number of seconds to define when the measurement will take place

For example, if the *% of max* is set to 50 and *sampling once every* is set to 10 seconds, the program will check for disk utilization every 10 seconds to determine if the utilization is below 50%.

CPU Activity

To include CPU activity in the inactivity definition, check *CPU activity is less than*, and configure the following settings:

- Set the percentage number to define inactivity of the CPU
- Set the number of seconds to define when the measurement will take place

For example, if the *% of max* is set to 25 and *sampling once every* is set to 15 seconds, the program will check for CPU activity every 10 seconds to determine if the utilization is below 25%.

Applications Running

To include the activity of running applications in the inactivity definitions, check *None of the following checked applications is running.* Once applications are added to this list, if any of them are running, the computer is not considered inactive.

For this option, configure the following settings:

- To add an individual program, click *Add Program*. Browse to the location of the preferred program and click *Open*. This program is then added to the selected group.
- To make an application active in the inactivity definition, the box for the application must be checked. If an application is not checked and is running, the workstation will be considered inactive.
- To remove a program, select it and click *Remove*.

Power Save Workstation Configuration Files

To save a Power Save workstation file after it has been configured using the Power Save Configuration tabs, click *Export*. In the Save As dialog that appears, enter a *File name* and browse to the preferred save location. The default save location is: *C:\Documents and Settings\All Users\Applications Data\Faronics\Power Save Console.*

To open a pre-configured Power Save workstation file, click *Import*. In the Open dialog that appears, browse to the location of the preferred pre-configured file.

To close the Power Save Configuration window, select *Exit* from the *File* menu.

Console Actions

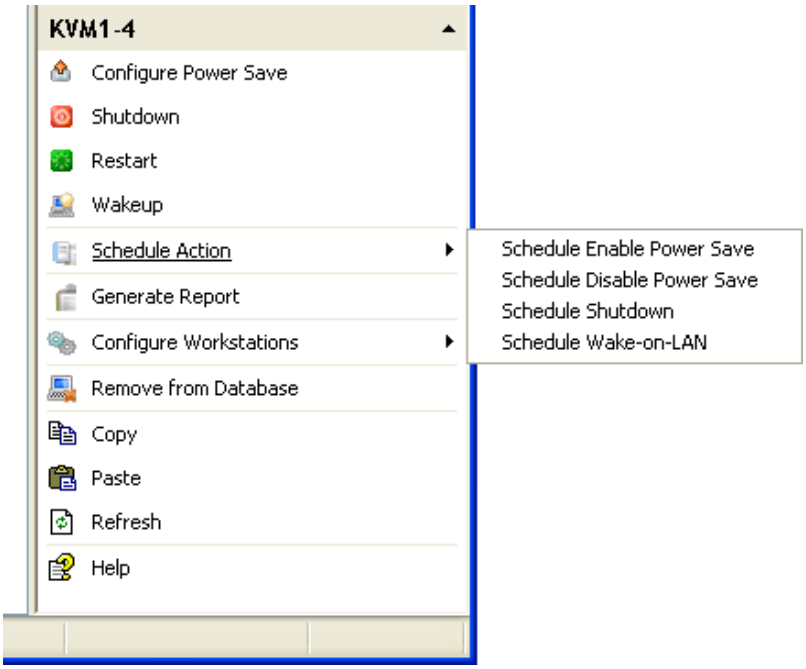
There are a number of other functions that are available from the Console.

- To shut down a workstation, select it in the Console and click *Shutdown* in the *Actions* pane.
- To restart a workstation, select it in the Console and click *Restart* in the *Actions* pane.
- To use Wake-on-LAN to wake up a workstation, select it in the Console and click *Wakeup* in the *Actions* pane.

Scheduling Actions

Power Save actions can be scheduled through the Console to occur on one or many workstations on a one-time, daily, weekly, or monthly basis. Actions that can be scheduled are: Enable Power Save, Disable Power Save, Shutdown, and Wake-on-LAN

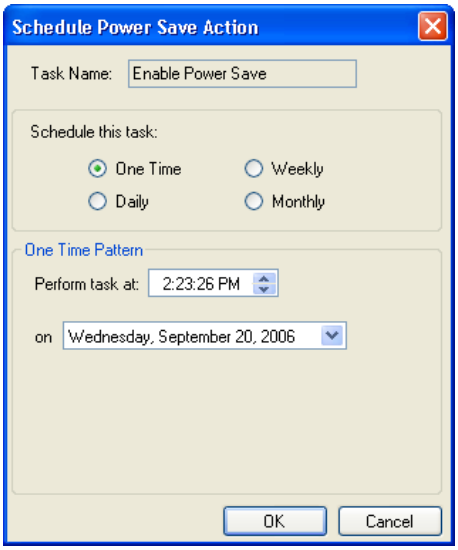
To choose an action, click *Schedule Action* in the right pane and choose the preferred action from the menu, as shown:



Alternatively, right-click on the selected workstation, select *Schedule Action* in the contextual menu, and select the preferred action.

Each schedule option has different configuration options, depending on the frequency of the action, as shown:

One-Time Actions

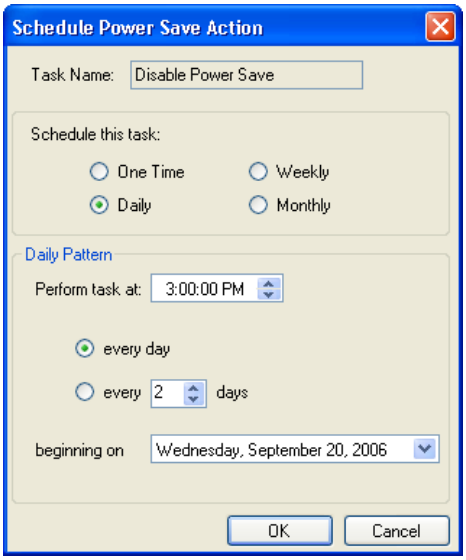


To execute a task one time only, choose the *One Time* radio button.

Enter the time and date when the task will execute.

Click *OK* to complete the scheduling of the task or *Cancel* to exit the dialog.

Daily Actions



To execute a task on a daily basis, choose the *Daily* radio button.

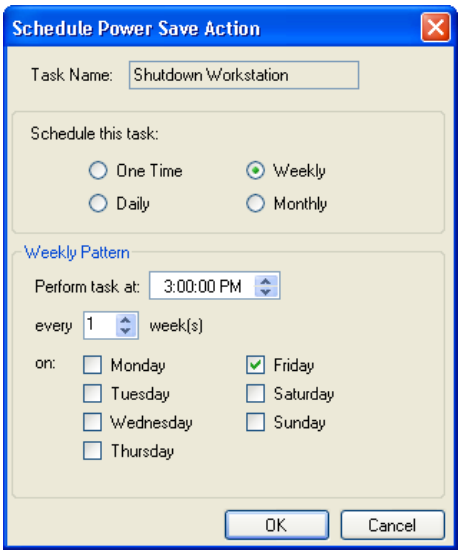
Enter the time when the task will be performed.

Choose if it will happen everyday, or use the spin box to set how frequently the task will occur.

Using the drop-down calendar, enter the day to begin.

Click *OK* to complete the scheduling of the task or *Cancel* to exit the dialog.

Weekly Actions



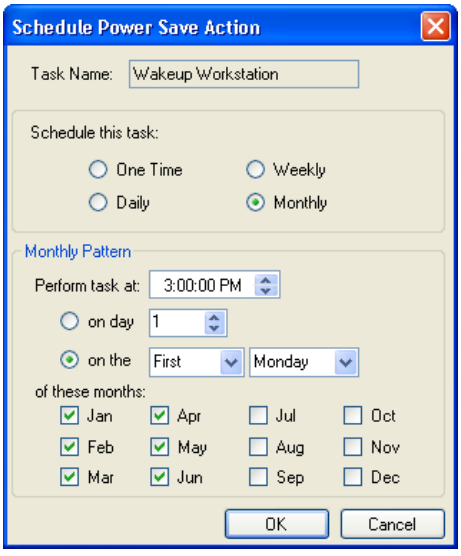
To execute a task on a weekly basis, choose the *Weekly* radio button.

Enter the time when the task will be performed.

Choose how frequently, on a weekly basis, the task will happen, and on which day(s) of the week.

Click *OK* to complete the scheduling of the task or *Cancel* to exit the dialog.

Monthly Actions



To execute a task on a monthly basis, choose the *Monthly* radio button.

Enter the time when the task will be performed.

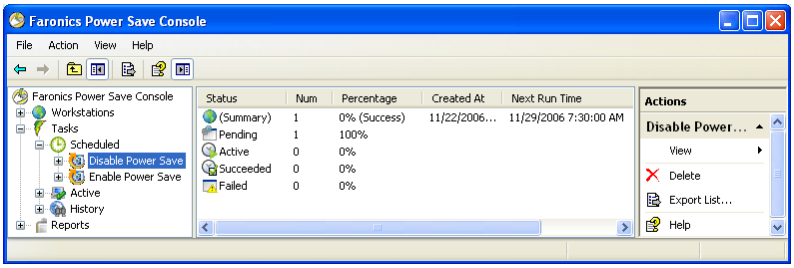
Choose the combination of days and months when the task will happen.

Click *OK* to complete the scheduling of the task or *Cancel* to exit the dialog.

Action Status

After an action is scheduled, it appears in the *Task* node in the left pane under *Scheduled*.

To view the status of any task, click on the preferred task. The details are displayed in the Console's main screen, as shown:



Administrators can view how many machines the task is scheduled for, if the task is active, or if it has already occurred, whether or not the task was successful.

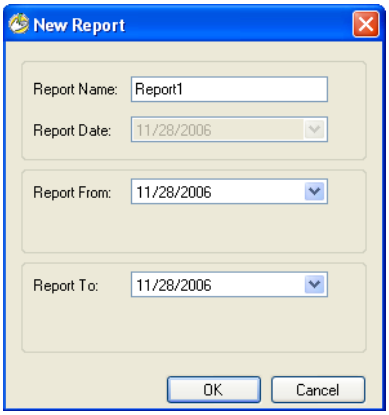
If a task is currently executing, it appears under *Active* and the progress of the task can be viewed in the main screen of the Console.

If a task has been executed, it appears under *History*. Click on the preferred task name to view the details of the task in the main screen of the Console.

Generating Reports

To generate a report, complete the following steps:

1. Click *Generate Report* in the right pane. The following dialog appears:



2. Enter the name of the report and use the drop-down calendars to set the date parameters of the report.
3. Click *OK*. The report name appears in the left pane under the *Reports* node. Click on the name of the report and the details are displayed in the main screen of the console.

The value of the report is an estimate; however, the more accurate the values entered in the Power Save Configuration tab, the more accurate the report will be.

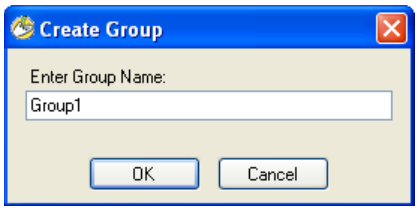
Creating a Subgroup

Subgroups can optionally be used to organize workstations into easily manageable groups.

To create a subgroup, click the *User Groups* node on the left side of the Console as shown below:

Then select the *Create Subgroup* action:

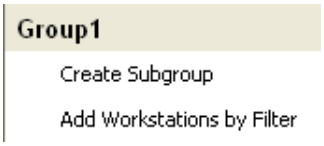
Enter a *Name* for the subgroup and click *OK*:



Individual or multiple workstations can now be copied and pasted into the group.

Adding Workstations to a Group with a Filter

Automatic group filtering allows workstations to be added to user defined groups automatically. The workstations are added based on their workstation name. Click on the group name on the left side of the Console and select the option to *Add Workstations by Filter*:



Wildcards (*, ?) can be used to add workstations based on a specific segment of the name. The * wildcard replaces one or more symbols; the ? wildcard replaces one symbol.

Example: Lab1-* adds all workstations with names starting with Lab1-.

Configuring Client Settings Locally

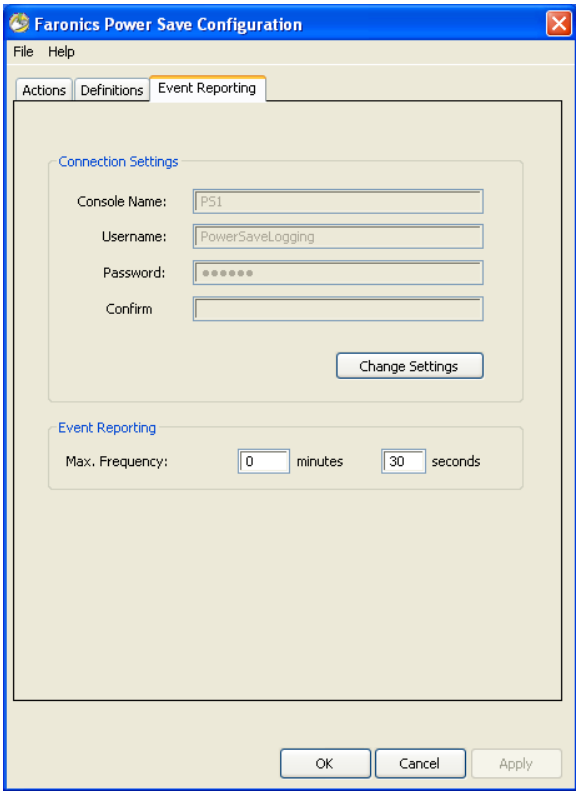
On the workstation, log in as the Administrator and browse to: *Start* > *All Programs* > *Faronics* > *Power Save Configuration*.

The *Actions* and *Definitions* tabs that appear are identical to the tabs available in the Console configuration. However, the options to *Import* or *Export* an installation file are accessible from the *File* menu.

The *Event Reporting* tab is specific to the local workstation configuration and is not available through the Console; it is described below.

Event Reporting Tab

The *Event Reporting* tab contains the information of the administrative logging account and allows the administrator to set up alternate options for configuring a connection to a new Console or modify the logging account credentials.



The *Console Name* is the name of the computer running the Power Save Console.

The *Username* and *Password* are the logon credentials for an account that exists on the Console workstation.

To change how frequently the workstation reports to the Console, adjust the *Max. Frequency* setting to the preferred frequency.

To save a workstation file, select *Export* from the *File* menu and browse to the preferred save location for the *.xml* file.

To load a workstation file, select *Import* from the *File* menu and browse to the location of the preferred *.xml* file.

Power Save Command Line Control

Power Save command line control offers network administrators increased flexibility in managing Power Save workstations by allowing for control of Power Save via third-party management tools and/or central management solutions. The following functions and commands are available:

Function	Command
silent install / update	`msiexec /q /i [path]Faronics Power Save workstation`
silent uninstall	`msiexec /q /x [path]Faronics Power Save workstation`
Enable Power Save	`[path]PowerSaveConfig /NoGui /Enable`
Disable Power Save	`[path]PowerSaveConfig /NoGui /Disable`
Update Power Save	`[path]PowerSaveConfig /NoGui /config=<xml config file>`
Display local UI	`[path]PowerSaveConfig`

`[path]`: location of where the file is going to be installed

`.xml config file`: configuration file created by Power Save

Example Command Line:

```
msiexec /q /i "c:\Install\Faronics Power Save Workstation.msi"
```

In the above example, `msiexec` is the Windows Installer command that executes the installation, `/q` activates quiet installation (installation without a user interface), `/i` executes installation of the program, `c:\Install` is the location of the target installation, and `Faronics Power Save Workstation.msi` is the name of the installation program.

Uninstalling Power Save

Uninstalling the Console

The Power Save Console can be uninstalled in two different ways:

- Locate the original installation *setup.exe* file used to install the Console program and execute the file; follow the prompts and choose the *remove* option.
- Open the *Add/Remove Programs* utility in the Windows Control Panel. Select *Faronics Power Save Console* and click *Change/Remove*.

Uninstalling the Workstation Client Program

Power Save can be uninstalled from the workstation three different ways:

- In the Console, select the preferred workstation, click *Configure Workstations* in the right pane, and select *Advanced* > *Uninstall Power Save.*
- On the workstation, run the *.msi* file and select the *Remove* option.
- On the workstation, open the *Add/Remove Programs* utility in the Windows Control Panel. Select *Faronics Power Save Workstation* and click *Change/Remove*.